



The roles of knowledge in transport policy

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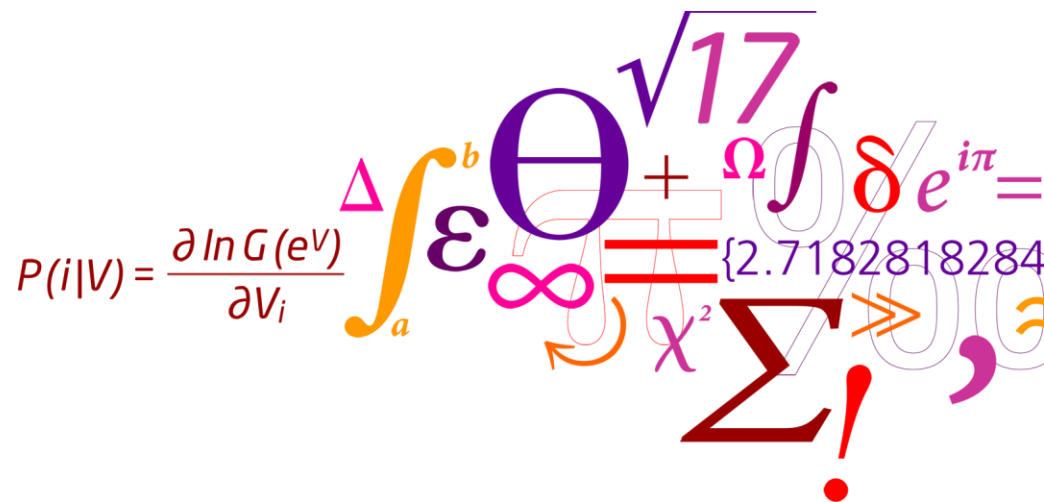
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The roles of knowledge in transport policy

Norbit Conference, November 4-5

Claus Hedegaard Sørensen



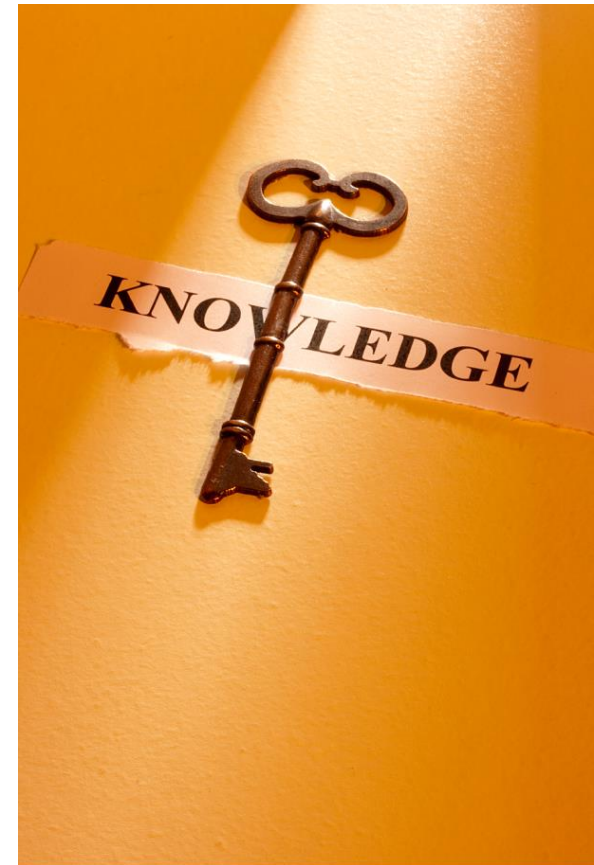
Knowledge and Transport Policy - 1

Many issues in transport are complicated
=>knowledge is important

Evidence based policy

Indicators to bridge science and policy

Knowledge might be used in unanticipated ways, to a limited extent, or not used at all.



Knowledge and transport policy - 2

Paper on Norwegian national transport planning process:

“Political decision makers gather information and do not use it; ask for more information and ignore it; make decisions first and look for relevant information afterwards; and, collect and process a great deal of information that has little or no direct relevance to decisions” .
(Sager & Ravlum, 2005: Planning Theory, 4, 1)

Outline

- Two studies
- Use and influence of knowledge
- Different roles of knowledge
- Explanations
- Danish speed policy
- Conclusions



Two studies

Indicator study (Sweden and EU Commission)

Study on Danish speed policy

Knowledge produced for political decision making.

Formal knowledge in memos and reports

Produced by state agencies, consultancy companies or research institutions

Indicator study



Some use—Little influence? On the roles of indicators in European sustainable transport policy

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Two cases:

- **Swedish** transport policy focusing on a 'Follow up report of the Swedish Transport Policy Objectives.
- Indicators produced for a mid-term review of the previous White Paper on Transport from the **European Commission**.

Danish speed policy study

Three cases:

- A memo made by the National Road Administration regarding legislation to **increase speed limits** on the motorways
- A memo produced by the Danish Transport Research Institute regarding legislation to introduce a **penalty point system**.



Dansk hastighedspolitik
- fire case-studier om konsensus og viden i politiske
beslutningsprocesser



Claus Hedegaard Sørensen
Lotte Larsen

Juni 2013

DTU Transport
Institut for Transport

Use and influence of knowledge

Use of knowledge

- Has to do with the way persons involved in a policy context handle the knowledge when they receive it.
- Use can involve observing, reading, processing, referring, quoting, transferring knowledge.

Influence of knowledge

- Regards how the use of knowledge affects policy content or process, if it does so.
- Influence means that knowledge contributes to a decision, an action, a way of thinking.

Use of knowledge in the cases-1

- In all cases knowledge provided was *used* in the policy making process.
- Knowledge is observed, read, referred, quoted more or less in the policy making process.
- However differences to extent of use
- No surprise

Use of knowledge in the cases - 2

- Quantitative knowledge seems to be more likely used than qualitative knowledge
- Indicators linked to quantitative targets seem more likely used than indicators not linked to such targets
- Knowledge stating methodological difficulties and avoiding clear conclusions seems less likely to be used than knowledge with clear conclusions
- Involvement of users in knowledge production increase use

Influence of knowledge in the cases

- Use does not automatically imply that knowledge also affects policy content or processes in more than a very superficial manner
- In the *short term* influence of this knowledge seems in most of the cases to be limited

This brings me to the *roles* of knowledge.

The role concept opens for different kinds of mechanisms of influence.



Knowledge roles in the cases

Through which kind of mechanism knowledge's influence (if any) is released

- Knowledge as instruments



- Knowledge as arguments

- Knowledge as symbols



- Knowledge as concepts

- Knowledge as rationalizations



Knowledge as instruments

Knowledge determine true and false

Used directly as a tool to form a decision

This is the typical understanding of knowledge roles

Knowledge in this role can be used either to bring about change or to confirm an existing policy



Example of 'knowledge as instruments': Case of higher speed limits on Danish motorways

During preparation of the bill among the civil servants

The memo and other documents from the National Road Administration played an instrumental role in reducing the amount of roads with a higher speed limit and possibly also to include road safety-related measures in the bill

A participant in the process argued: "You couldn't disregard the expert statements that parts of the road network was not designed for a speed limit of 130 km/h"

This confirms a tendency that the instrumental role of knowledge is more likely to be found in bureaucratic sphere than in political sphere.

Knowledge as arguments

Knowledge is NOT recognized by all parties as an instrument to determine true or false

Knowledge is used as a contribution from one party, as an argument for a position

However not changing any positions.

Different parties apply different knowledge



Example of 'knowledge as arguments': Case of higher speed limits on Danish motorways

By those politicians **against the higher** speed limits the memo was used as an argument.

-> "It appears clearly from the memorandum that the approval of this bill will result in more fatalities".

Representatives from **the government** parties emphasised the uncertainty of estimates made by the National Road Administration and questioned it.

-> "There is no scientific evidence that it will result in more fatalities"

All MPs – for and against the bill – in advance had a clear position as to the increase of the general speed limits on the motorways, and the memo from the National Road Administration did not make them change their mind

The same type of knowledge can play more roles

Knowledge as symbols

Knowledge justifies decisions
that have already been taken or
is used to postpone decisions

This may still embody policy
influence, e.g. on policy
legitimacy or the balance of
power

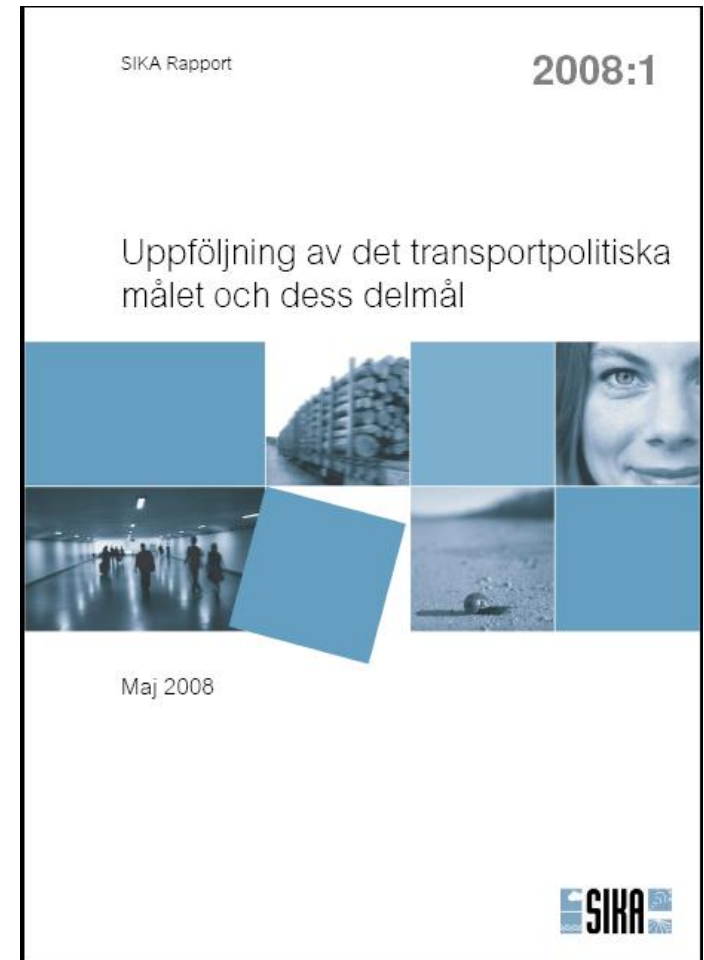


Example of 'knowledge as symbols': Case on Swedish indicators

In the Swedish case of "Follow up report of the Swedish Transport Policy Objectives"

Government agencies and industry did at times apply the follow up report indicators selectively in successful areas to demonstrate policy was on track

Weak symbolic role



Knowledge as concepts

Knowledge contributes to expand knowledge base or shape or introduce new ideas

Influence on concepts, discourses etc

No direct and immediate use or influence of knowledge



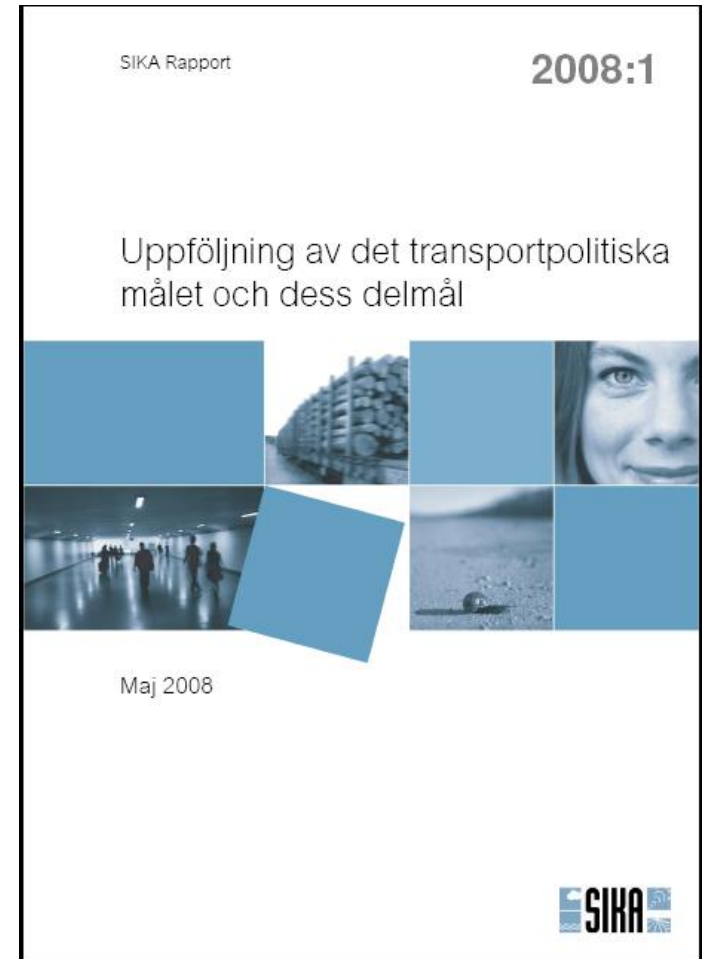
Example of 'knowledge as concepts'

Case on Swedish indicators

This is the most likely role of the Swedish indicator report

Indicators influence the knowledge and awareness of civil servants and MPs

- Not used directly in the Parliamentary Transport Committee
- But being read and noticed
- Mainly background material
- The number of fatalities annually reported became a reminder



Knowledge as rationalizations

Decisions which are already on the cards become more obvious and easier to defend or express by means of knowledge

Combining elements of instrumental, and symbolic roles

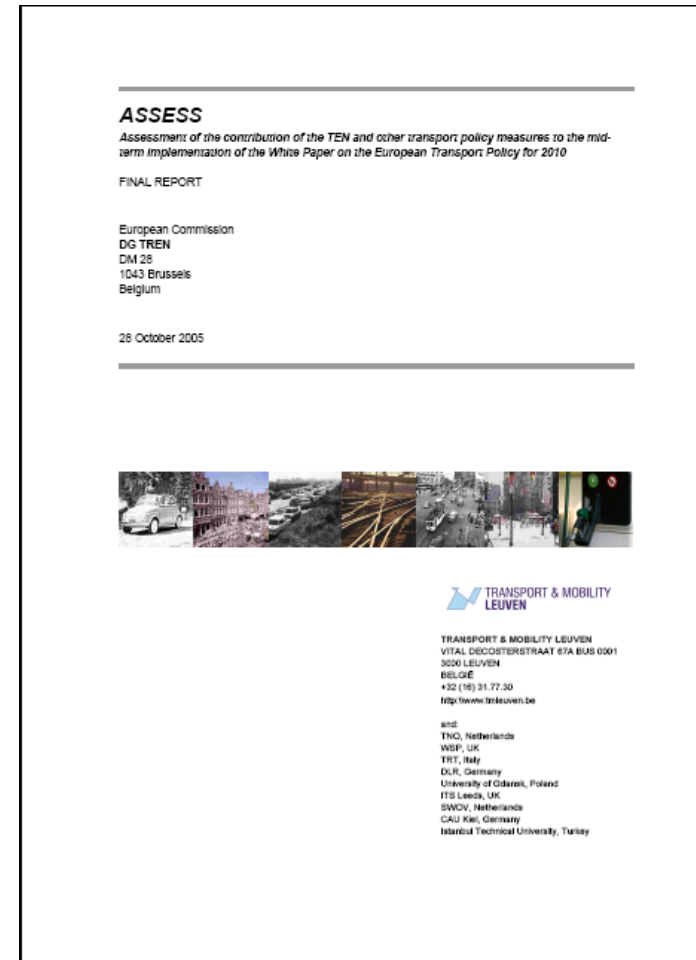
- Instrumental in the sense that knowledge informs a process where policy is reformulated/changed
- Symbolic in the sense that it mostly codifies a change that has already been foreseen and accepted



Example of 'knowledge as rationalizations' EU indicator case

Indicators did influence the process and its result.

However, only in correspondence with a number of other political and economic factors pointing towards the same changes



Explanations of knowledge roles

Content factors:

- The character of knowledge as accurate and appropriate.
- E.g. validity, timeliness, targets relevance, actionability

User factors:

Perceptions, capabilities and positions of people involved.
E.g. educational background, role in policy process

Policy factors:

The policy context for the use of knowledge.
E.g. features of the sector, the nature of the institutions, specific arrangements for management, stage of policy making, **degree of consensus**

A broad variety of factors are likely to enable or constrain use, influence and roles of knowledge in policy making

Danish speed policy

Focus on speed limits and sanctions

Knowledge on traffic safety effects of legislation

We found:

Knowledge as instruments

Knowledge as arguments

Knowledge as rationalizations



Can we explain these roles by characteristics of the cases and the policy field?

Knowledge as instruments

Case: Higher general speed limits on motorways

During the civil servants preparation of the bill

Content factors (quantitative knowledge) and user factors (civil servants)



Knowledge as instruments

“You couldn’t disregard the expert statements that parts of the road network was not designed for at speed limit of 130 km/h”

Knowledge as arguments

Case: Higher general speed limits on motorways

Considerable consensus on traffic safety as a core value

Considerable disagreement on measures

 Knowledge as arguments



Knowledge as rationalizations

Cases: Introduction of penalty point system

Almost complete consensus on values as well as measures

Politicians consider themselves knowledgeable because of personal experiences



knowledge as (weak) rationalization
knowledge almost unnecessary



Conclusions - 1

- We have considered knowledge which is designed to be used in specific decision-making processes. Good possibilities for use and influence
- Use is observed in all cases – though to different extent
- However, use does not automatically imply influence
- Content factors, user factors, policy factors can contribute to explain use, influence and roles.

Conclusions - 2

- Knowledge as instrument is observed, but limited
- Important to be aware of other roles also:
 - knowledge as argument,
 - knowledge as symbols
 - knowledge as concepts
 - knowledge as rationalization
- Too limited research to conclude on possible particular features on knowledge roles in transport policy compared to other sectors.